

# VSC Fire & Security, Inc.

453 Jessen Lane Charleston, South Carolina 29492 843-416-1300 phone 843-416-1301 fax www.vscfs.com

5664

# **Annual Sprinkler System Inspection**

| Customer Address:                 | Site Address:                         |
|-----------------------------------|---------------------------------------|
| City of Charleston/Dept of Parks  | Confederate Museum                    |
| 823 Meeting Street                | 188 Meeting Street                    |
| Charleston, SC 29403              | Charleston, SC 29403                  |
| Phone: 8437243457 Fax: 8435797692 | Phone: 843-607-8187 Fax:              |
| Customer #: 025050C217            | Site #: 5000558. Contact: Ed Anderson |
| Job Name: Confederate Museum      | Inspection Date: 8/31/2015            |

# Summary List of Fire Protection Systems

| System           | Total | System           | Total |
|------------------|-------|------------------|-------|
| Dry System       | 1     | Standpipe System | 0     |
| Wet System       | 1     | Fire Pump        | 0     |
| Deluge System    | 0     | Hydrants         | 0     |
| Preaction System | 0     | Water Tanks      | 0     |
| Foam System      | 0     |                  |       |

| Notifications Made Prior to Any Testing |        |                  |                     |        |                         |  |  |
|---|--------|------------------|---------------------|--------|-------------------------|--|--|
|   | Yes/No | Who/Time         |                     | Yes/No | Who/Time                |  |  |
| Monitoring agency                       | Yes    | SONITROL<br>**** | Building Management | Yes    | EDD ANDERSON<br>7:30 PM |  |  |
| Building occupants                      | Yes    | All              | Other<br>N/A        | N/A    | N/A                     |  |  |

| Notifications Made When Testing Complete |           |                         |                        |        |          |  |  |
|--|-----------|-------------------------|------------------------|--------|----------|--|--|
|  | Yes/No    | Who/Time                |                        | Yes/No | Who/Time |  |  |
| Monitoring agency                        | Yes       | SONITROL<br>****        | Building<br>Management | Yes    | MAINT    |  |  |
| Building occupants                       | Yes       | All                     | Other<br>N/A           | N/A    | N/A      |  |  |
| System restored to norr                  | mal opera | tion: 8/31/2015 9:25 AM |                        |        |          |  |  |

NFPA 25, 2008 edition code references in ( )
2013 Environment of Care; Elements of Performance for EC.02.03.05 in [ ];reference NFPA 25 1998 edition
\*\*\*\*Indicates question was scheduled, but was not answered. ----Indicates question was not scheduled, & was therefore not answered

# **Dry Pipe System**

#### **Dry Sprinkler System Inspection**

| Sprinkler heads free of corrosion, foreign material, paint or damage, no signs of leakage & heads installed in proper orientation? (5.2.1.1.1)   | Yes |
|--|-----|
| Minimum clearance maintained below all sprinklers? (5.2.1.2)   | Yes |
| Number of replacement sprinkler heads per number installed in the head box comply: 6 per 1-300: 12 per 301 to 1,000: 24 per > 1,000? (5.4.1.5)   | Yes |
| Sprinkler head wrench for each type head provided in head box? (5.4.1.6)   | Yes |
| System piping free of mechanical damage, leaks, corrosion, misalignment, or other loads or pipe hung from system? (5.2.2.1 & 5.2.2.2)  | Yes |
| Pipe hangers and seismic braces secure and undamaged? (5.2.3.1)  | Yes |
| Adequate heat to protect part of system containing water at a minimum temperature of 40° F? (5.2.5)  | Yes |
| All sprinklers in this building been manufactured after 1920? (5.3.1.1.1.1)  | Yes |
| All sprinklers in building less than 50 years old or, if fast response, less than 20 years old, or if older representative samples tested within the last 10 years? (5.3.1.1.1)          | Yes |
| If dry sprinklers are installed in building, and have been in service for 10 years, have they been replaced or a representative sample tested? (5.3.1.1.1.5) Date tested, if applicable: | N/A |

#### Dry Pipe Valve

#### Dry Sytem 1st Floor Riser Closet 1st Floor Gem F-3021 4"

Full flow trip test of dry valve conducted with control valve opened fully? (13.4.4.2.2.2)

| Enclosure and heating equip  |                   |             |                   |         |                        | uges operating properly?           | Vaa   |
|--|-------------------|-------------|-------------------|---------|------------------------|------------------------------------|-------|
| temperature, during cold weather? (13.4.4.1.1)   |                   |             | Yes               | (13.4.  | 4.1.2)                 |                                    | Yes   |
| Pressure (psi) shown on the  | Water Supply pre  | ssure       |                   | Press   | ure (psi) shown on t   | he System side pressure            |       |
| gauge. (13.4.4.1.2.1)  |                   |             | 35                | gauge   | e (13.4.4.1.2.2)       | •                                  | 33    |
| Exterior of valve in good corchamber not leaking? (13.4  |                   | sical dama( | ge, trim valves   | s in no | rmal open or closed    | position & intermediate            | Yes   |
|  |                   |             |                   | Low a   | air pressure alarm, if | provide, operates within mfr's     |       |
| Priming water level correct?   | (13.4.4.2.1)      |             | Yes               | test ra | ange? (13.4.4.2.6)     |                                    | N/A   |
| <b>Main Drain Test Pressure</b>  | s                 |             |                   |         |                        |                                    | [EP9] |
| Static Pressure before valve opened  | 40                | Residual P  | ressure with open | valve   | 35                     | Static Pressure after valve closed | 40    |
| Record time (seconds) for supply water pressure to return to original static pressure. (A.13.2.5)                            |                   |             |                   |         |                        | 3                                  |       |
| Main Drain Test Pressures less than 10% reduction in flow from original acceptance test or previous test results? (13.2.5.2) |                   |             |                   |         |                        | Pass                               |       |
| Is there adequate drainage available? (13.2.4)   |                   |             |                   |         |                        | Yes                                |       |
| Automatic air pressure maintenance device, if provided, maintains air pressure at proper setting for system? (13.4.4.2.8)    |                   |             |                   |         |                        | Yes                                |       |
| Low temperature alarm, if installed in valve enclosure, tested before start of cold season? (13.4.4.2.7)                     |                   |             |                   |         |                        | N/A                                |       |
| Partial trip test of the dry pipe valve conducted with control valve partially opened? (13.4.4.2.2.3)                        |                   |             |                   |         |                        | Yes                                |       |
| Air pressure (psi) at trip of dry valve.  4 Time (sec) between start of test & trip of valve.                                |                   |             |                   |         |                        |                                    |       |
| Internal inspection - all com  | ponents operate p | roperly & n | nove freely, va   | alve cl | eaned & in good con    | dition? (13.4.4.3.1)               | Yes   |
| Low point drains opened, pi<br>they are clear & unobstructed   |                   | s closed &  | plugs replace     | d or w  | here weep holes are    | e provided, inspected to ensure    | Yes   |

# **Wet Sprinkler System**

Yes

#### Wet Sprinkler System Inspection

| Sprinkler heads free of corrosion, foreign material, paint or damage, no signs of leakage & heads installed in proper orientation? (5.2.1.1.) | Yes |
|---|-----|
| Minimum clearance maintained below all sprinklers? (5.2.1.2)  | Yes |
| # replacement sprinkler heads per number installed in the head box comply: 6 per 1-300: 12 per 301 to 1,000: 24 per > 1,000? (5.4.1.5)        | Yes |
| Sprinkler head wrench for each type head provided in head box? (5.4.1.6)  | Yes |

System pass testing for air leakage? (13.4.4.2.9)

Time (sec) between start of test & water flow from

inspectors test connection.

Yes

49

| System piping free of mechanical damage, leaks, corrosion, misalignment, or other loads or pipe hung from system? (5.2.2)   | Yes |
|---|-----|
| Pipe hangers & seismic braces secure & undamaged? (5.2.3.1)   | Yes |
| Adequate heat to maintain minimum building temperature of 40° F, & building free of conditions exposing pipe to freezing? (5.2.5)   | Yes |
| All sprinklers in this building been manufactured after 1920? (5.3.1.1.1.1)   | Yes |
| All sprinklers in building less than 50 years old or, if fast response, less than 20 years old, or if older, representative samples tested within the last 10 years? (5.3.1.1.1)        | Yes |
| If dry sprinklers are installed in building, & have been in service for 10 years, have they been replaced or a representative sample tested? (5.3.1.1.1.5). Date tested, if applicable: | N/A |

| Othe | r Co | mp     | one | nts  |
|------|------|--------|-----|------|
|      |      | יעוווי |     | 1113 |

# **Supervisory Summary**

| Item                              | Total | Tested | Fail | Item                       | Total | Tested | Fail |
|-----------------------------------|-------|--------|------|----------------------------|-------|--------|------|
| Air Pressure Switch - Supervisory | 0     | 0      | 0    | Water Motor Alarm          | 0     | 0      | 0    |
| Waterflow Alarm Switch            | 1     | 1      | 0    | Fire Department Connection | 1     | 1      | 0    |
| Tamper Switch - Supervisory       | 1     | 1      | 0    |                            |       |        |      |

### Air Compressor

| Area/<br>Location | Mfr/<br>Model | Compressor free of physical damage & operating properly? (5.4.2.3) | Compressor been maintained? (5.4.2.3) |
|-------------------|---------------|--|---------------------------------------|
|                   |               | Yes  | Yes                                   |

### Electric Bell

| Area/Location | Electric bell operating properly and free of damage? (5.3.3.1) |
|---------------|--|
|               | Yes  |

# Fire Department Connection

# [EP10]

| FDC visible & accessible, without damage & signs in |      | Couplings & swivels free of damage & rotate           |      |
|---|------|---|------|
| place? (13.7.1)                                     | Pass | smoothly? (13.7.1)                                    | Pass |
| Caps, plugs & gaskets in place & free from damage?  |      | Check valve clapper free from leaks & automatic drain |      |
| (13.7.1)  | Pass | valve in place & operating properly? (13.7.1)         | Pass |

# Hydraulic Nameplate

| Area/Location | Nameplate securely attached to sprinkler riser & is legible? (5.2.7) |  |  |
|---------------|--|--|--|
|               | Yes  |  |  |

## **Obstruction Investigation**

Date of last 5 year internal inspection.

| Supe | ervisory Tamper Switch | [EP2] |
|------|------------------------|-------|
|      |                        |       |

|               |   | <u> </u>  |
|---------------|---|---|
| Area/Location | Switch passed a visual inspection? (13.3.3.5.1) | Switch pass operational test indicating movement from normal position? (13.3.3.5.2) |
|               | Pass  | Pass  |

|               | [EP2]  |   |  |
|---------------|--|---|--|
| Area/Location | Flow switch free of damage with its electrical connections secure? (5.3.3) | Water flow activate alarm when open test connection/bypass? (5.3.3) |  |
|               | Pass   | Pass  |  |

# **Valves**

| Control Valve |      |      |                         |                    |                       |                          |
|---------------|------|------|-------------------------|--------------------|-----------------------|--------------------------|
| Area          | ltem | Size | Acceptable<br>Condition | Normal<br>Position | Secured<br>(13.3.2.2) | Exercised/<br>Lubricated |

|  |                |    | (13.3.2.2) | (13.3.2.2) |     | (13.3.3.1) |
|--|----------------|----|------------|------------|-----|------------|
| Backflow Control<br>Riser Closet 1st Floor   | Control valves | 4" | Yes        | Yes        | Yes | Yes        |
| Backflow Control<br>Riser Closet 1st Floor   | Control valves | 4" | Yes        | Yes        | Yes | Yes        |
| Dry System Control<br>Riser Closet 1st Floor | Control valves | 4" | Yes        | Yes        | Yes | Yes        |
| Wet System Control<br>Riser Closet 1st Floor | Control valves | 4" | Yes        | Yes        | Yes | Yes        |

# Wet Riser Main Drain/No Check Valve - 1 gauge

### Wet System 2nd Floor Riser Closet 1st Floor

| Exterior of connection in good condition & gauge operable? (13.4.1.1)  |       |
|--|-------|
| Main Drain Test Pressures  | [EP9] |
| Static Pressure before valve opened  | 55    |
| Residual Pressure with valve open  | 30    |
| Static Pressure after valve closed.  | 35    |
| Record time (seconds) for supply water pressure to return to original static pressure. (A.13.2.5)                            | 2     |
| Main Drain Test Pressures less than 10% reduction in flow from original acceptance test or previous test results? (13.2.5.2) | Pass  |
| Is there adequate drainage available? (13.2.4)   | Yes   |

#### **Additional Comments**

- -Five year done 9/27/2012
- -Three done 9/18/2014

#### **Liability Release Statement:**

The owner and/or designated representative acknowledges the responsibility of the operating condition of the component parts at the time of this inspection. It is agreed that the inspection service provided by the contractor as prescribed herein is limited to performing a visual inspection and/or routine testing, and any investigation or unscheduled testing, modification, maintenance, repair, etc., of the component parts is not included as part of the inspection work performed. It is further understood that all information contained herein is provided to the best of the knowledge of the party providing such information.

Customer: Leon Patat

8/31/2015

Inspection Technician: Brian L Sharp

8/31/2015